Attorney Docket No.: ST9-99-177(A8062)

U.S. Application No.: 09/771,519

## **REMARKS**

Claims 1-67 are all the claims pending in the application.

Applicant thanks the Examiner for withdrawing the previous rejection. The Examiner, however, found new grounds for rejecting the claims. In particular, claims 1-67 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,513,112 to Craig et al. (hereinafter "Craig") in view of U.S. Patent No. 6,144,941 to Hotti et al. (hereinafter "Hotti"). Applicant respectfully traverses this rejection and respectfully requests the Examiner to reconsider this rejection in view of the comments, which follow.

Of these claims, only claims 1, 21, 41, and 61 are independent. This response will initially focus on these independent claims. Among a number of unique features of claim 1 not taught or suggested by the prior art references cited by the Examiner, are: "generating a private catalog for the transaction to record information about the object, and using the private catalog during the transaction to access the objects." The Examiner asserts that claim 1 is directed to a method for executing a statement to manipulate data stored in a data store and is obvious over Craig in view of Hotti. The Examiner asserts that Craig's client object is similar to a private catalog, as set forth in claim 1 (see page 2 of the Office Action).

The Examiner did not indicate which features are missing in the Craig's reference but are taught by Hotti. In making this rejection of claim 1, the Examiner did not link the claim features to the prior art references. Instead, the Examiner provided a summary of the teachings of the two references (see pages 2 and 3 of the Office Action). Applicant has carefully studied Craig's

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discussion of the system and apparatus for administration of configuration information using a catalog server object to describe and manage requested configuration information to be stored in a table object and Hotti's discussion of the intelligent transaction. Taken alone or in any conceivable combination, these are not similar to "generating a private catalog for the transaction to record information about the objects, and using the private catalog during the transaction to access the objects."

In the conventional system, when the user requests to delete an object from a user database, for example, the system will access a catalog (system database) to acquire the location of the object and then go to the user database and delete the object at that location. Then, the system database updates its catalog to reflect that the object is no longer at that location. However, once the system accesses the catalog, a lock is placed on that database disallowing other transactional requests to access the catalog. This is inefficient.

In the method set forth in claim 1, however, the following steps are implemented: "generating a private catalog for the transaction to record information about the objects; and using the private catalog during the transaction to access the objects." As a result, a lock is avoided by using this private catalog and the objects can be accessed using this generated private catalog.

Craig addresses an unrelated problem of knowing where the configuration information is located (where the system registry is located) and the need to understand the format in which this configuration information is stored. In particular, Craig addresses the problem of a programmer

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needing to manually access and manipulate registry information, thus, introducing undesirable program complexity and exposing the registry to the risk of corruption by improper programming. That is, Craig attempts to provide a simplified method for handling location and format changes to the configuration information (col. 1, lines 48 to 65).

In particular, Craig teaches accessing a requested table of configuration information through a catalog server object that manages the configuration information in one or more datastores of a computer system. An administration tool causes the client table object to be created in order to read or write configuration information available to the client table object. In Craig, the client table object obtains the configuration information from catalog server objects and records the information in its own cache. Subsequent access by the administration tool to the configuration information is serviced by the client table object until the cache is refreshed. Changes to the configuration information are written back to the corresponding datastores. While the client table object is servicing these accesses internally, any connections to the catalog server objects may be released (Fig. 2; col. 2, lines 15 to 35; col. 3, lines 23 to 34; and col. 7, lines 30 to 65).

That is, Craig teaches having the client table object, generated by the administration tool, obtain configuration information from the catalog server objects. Then, Craig teaches having the client table object store the configuration information in its cache and access this stored configuration information. In other words, Craig only teaches making a copy of the configuration information for its modification. Craig does not teach or suggest using this stored configuration information to access other objects. In other words, Craig only stores information

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that is to be modified. In short, the configuration information is stored so that it can be modified and not so that it can be used to access other objects.

Hotti does not cure the deficient teachings of Craig. Hotti is <u>not related to the</u> <u>configuration information</u>. Instead, Hotti addresses the problems of consistency violations and business rule violations in a data management system when long transactions are used (col. 2, lines 43 to 45 and col. 4, lines 23 to 29). In particular, Hotti relates to a communication between statements of a long transaction. In particular, Hotti teaches having a bulletin board on which the statements can post data so that other statements of this same long transaction can use this data (col. 4, line 25 to co. 5, line 23). Moreover, Hotti teaches forming messages from the transactions and transmitting the messages to another database (col. 5, lines 23 to 33).

That is, Hotti only teaches a bulletin board on which the data generated by the statements is posted so that it may be used by other statements and not creating a private copy of the system catalog. Moreover, in Hotti, this data is used by other statements to complete their processing and not to access object. In short, Hotti fails to teach or suggest "generating a private catalog for the transaction to record information about the objects; and using the private catalog during the transaction to access the objects."

Finally, the Examiner alleges that there is motivation to combine the references to manipulate data in a database for a private transaction (page 3 of the Office Action). However, "obviousness cannot be established by combing the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination" <u>In</u>

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re Geiger, 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987) (citing ACS Hosp. Sys. v. Montefiore Hosp., 221 U.S.P.Q. 929. 933 (Fed. Cir. 1984).

Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, must nevertheless be "clear and particular." Winner International Royalty Corporation v. Ching-Rong Wang, 202 F.3d 1340, 1348, 53 USPQ2d 1580, 1586-87 (Fed. Cir. 2000). Conclusory statements such as common knowledge to one skilled in the art or common sense do not fulfill the agency's obligation. In re Sang Su Lee, 277 F.3d 1338, 1345 - 46, 61 U.S.P.Q.2d 1430, 1438 (2002).

Craig teaches manipulation of configuration information. In particular, Craig teaches storing configuration information of the server object in the cache of the client object, thereby facilitating the finding of the configuration information and the understanding of the format in which this configuration information is stored. One of ordinary skill in the art confronted with a problem of location and format of the configuration information would not have turned to Hotti, which addresses a completely unrelated problem of data exchange between statements of a long transaction. Moreover, even if the two were somehow combined, Craig would have been used for modifying the configuration information, whereas Hotti would have been used for communication of data between statements of a single long transaction.

In short, one of ordinary skill in the art would not have been motivated to combine the references in the manner suggested by the Examiner, and even if somehow combined, the

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combined teachings of Craig and Hotti fails to teach or suggest "generating a private catalog for the transaction to record information about the objects, and using the private catalog during the transaction to access the objects," as set forth in claim 1. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved the subject matter of claim 1. Since claims 2-20 are dependent upon claim 1, they may be patentable at least by virtue of their dependency.

Next, Applicant respectfully traverses this rejection with respect to independent claims 21, 41, and 61. These independent claims recite: "generating a private catalog for the transaction to record information about the objects, and using the private catalog during the transaction to access the objects." These recitations are analogous to the features argued above with respect to claim 1. Therefore, those arguments are respectfully submitted to apply with equal force here. For at least substantially analogous reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of independent claims 21, 41, and 61. Claims 22-40, 42-60, and 62-67 are patentable at least by virtue of their dependency on independent claims 21, 41, and 61, respectively.

In addition, dependent claims 20, 40, and 60 recite: "wherein the statement comprises a data definition language statement." Neither Craig, nor Hotti, alone or in any conceivable combination, teach or suggest the user of DDL. Therefore, for at least this additional reason, dependent claims 20, 40, and 60 are patentable over the combined teachings of Craig and Hotti.

Moreover, dependent claim 64 recites: "the private copy of the system information is a catalog table partially filled in with the system information about said at least one object." The

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combined teachings of Craig and Hotti fail to teach or suggest a private copy being only partially filled with the system information. For at least this additional reason, claim 64 is patentable over the combined teachings of Craig and Hotti.

Claim 66 recites: "the private copy of the catalog is generated only when an actual lock contention occurs" and claim 67 recites "the actual lock contention occurs when there is more than one statement for operating on the same object in the data store." Both Craig and Hotti fail to teach or suggest at least these exemplary features of claims 66 and 67.

Craig teaches having the client table objects servicing the client and releasing the server object (col. 2, lines 25 to 27). In other words, in Craig, there is no teaching or suggestion of a lock. Hotti also fails to teach or suggest a lock. In fact, in Hotti, information is posted on the "bulletin board" for the statements to share. Information is also communicated between databases via messages. There is no teaching or suggestion that when one statement uses the posted information, the other statements cannot access the posted data. On the contrary, in Hotti, one or more statements can use the posted data simultaneously and no lock is taught or suggested. In short, Craig and Hotti, taken alone or in any conceivable combination, fail to teach or suggest having a lock. Moreover, the references fail to teach or suggest generating a private copy of the catalog only when an actual lock contention occurs. In Craig, the client objects are generated each time by the administration tool and not only when the actual lock contention occurs. For at least these additional reasons, claims 66 and 67 are patentable over the combined teachings of Craig and Hotti.

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## Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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